

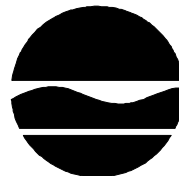
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Erin M. Crotty
Commissioner

March 20, 2003

Public Information and Records Integrity Branch (PIRIB)
Office of Pesticides Programs (OPP)
Environmental Protection Agency (7502C)
1200 Pennsylvania Ave., NW
Washington, D.C. 20460-0001
ATTN: Docket ID Number OPP-2002-0049

SUBJECT: Comments Regarding the Document Entitled: "Potential Risks of Nine Rodenticides to Birds and Nontarget Mammals: a Comparative Approach" dated December 19, 2002, Docket ID Number OPP-2002-0049.

The New York State Department of Environmental Conservation's (NYSDEC) Division of Fish, Wildlife and Marine Resources reviewed the EPA document entitled: "Potential Risks of Nine Rodenticides to Birds and Nontarget Mammals: a Comparative Approach", and submits the following comments.

EPA's "Potential Risks of Nine Rodenticides to Birds and Nontarget Mammals: a Comparative Approach" accomplishes two significant goals. 1) It brings together in one document a careful review, analysis and summary of much of the available literature regarding the primary and secondary toxicity of rodenticides, including both field and lab studies; and 2) it provides a careful weight-of-evidence approach for comparing the nine registered rodenticide active ingredients.

The weight-of-evidence methodology used in the risk assessment is carefully crafted to provide an objective assessment of the various rodenticide active ingredients. This objectivity is furthered by the sensitivity analysis and robustness analysis that are useful for showing that the results were not just "artifacts" of the data analyzed.

The NYSDEC is very pleased the findings of this risk assessment, that brodifacoum presents the greatest potential for risk to nontarget birds and mammals, was consistent with the observations of Ward Stone, the New York State Wildlife Pathologist, who over the past ten years has documented that brodifacoum has been responsible for an inordinate number of wildlife and avian mortality cases (Stone et al., 1999; Stone et al., 2003).

The authors of the risk assessment were careful not to be sidetracked by issues such as misuse of the products by nonprofessional users. By limiting the risk assessment to strictly toxicity and dose, they are more clearly able to establish that brodifacoum is inherently a more risky active ingredient than the others.

NYSDEC supports the findings of this risk assessment. It provides clear documentation that brodifacoum presents high levels of risk to nontarget birds and mammals while other available active ingredients present less risks. New York State encourages the U.S. Environmental Protection Agency to continue expeditiously with its' analysis of brodifacoum, and to move quickly towards regulatory actions that would reduce the risks from brodifacoum and other rodenticides to nontarget birds and mammals.

Specific Comments:

Page 7, second paragraph, last sentence:

New York has advocated the position that rodenticide products should be clearly segregated into indoor and outdoor use categories. The public should not be given the opportunity to purchase a rodenticide-filled bait station made out of paperboard or cardboard if the label permits that bait station to be placed outside where it can be exposed to wet weather and be accessible to nontarget birds and mammals. As stated above, the issue of product misuse was appropriately not addressed in this risk assessment. However, if bait stations for outdoor use are packaged only in tamper and weather resistant containers, the cost issue will be addressed (i.e., there would be no other alternative) and nontarget birds and mammals will be afforded greater protection.

Table 6, 7, and 8:

It was a disappointment that no LC_{50} dietary exposure information for mammals was available. This illustrates a weakness in EPA's data requirements for pesticide registration. Ecotoxicological risk assessors of pesticides are obligated to use studies that were conducted for human health protection in order to assess risks to mammalian wildlife. EPA's registration guidelines call for an eight day dietary toxicity study for birds (Guideline 71-2). However, the shortest mammalian dietary study is 28 days (Guideline 81-2). A 28 day dietary LC_{50} is not a meaningful metric for assessing short term risks to mammalian wildlife. EPA should use the results of the mammalian acute oral toxicity test (Guideline 81-1) to establish an LD_{50} threshold below which, a short term (five - eight day) mammalian acute dietary toxicity would be required. This would provide ecotoxicological risk assessors with a more practical tool for assessing risks from pesticides that clearly show high acute oral toxicity to mammals based on the acute oral toxicity study results.

Page 45, last paragraph and page 54, last paragraph:

These references make ancillary mention of the issue of avoidance. Perhaps the risk assessment should be modified to include a section on this issue. Brodifacoum is effective because target organisms can ingest a toxic dose with one feeding. Is the efficacy of older, first generation rodenticides impaired because target species that survive a first encounter learn to avoid them? How much of an issue is avoidance and the need to ingest a toxic dose at once?

Should that be addressed here or will that be an issue for the risk/benefit analysis?

Page 59, second full paragraph:

An examination of the diphacinone orchard study raises one important consideration that has not been discussed in the risk assessment; and that is the relative persistence of the products, particularly when used in broadcast applications to exposed areas. Broadcast-applied rodenticide baits appear to break down fairly quickly. On one hand, short persistence of the baits tends to reduce risk. On the other hand, short persistence might encourage frequent re-application, thus increasing the risk of nontarget exposure. In New York, a registration was denied for a chlorophacinone product for pine and meadow vole control in orchards because the label allowed broadcast application. Instead, a Special Local Needs registration was approved for hand baiting only, because studies reviewed at the time of the registration decision (1994) did not clearly show that broadcast application was any more effective for vole control than hand baiting.

Page 78, first paragraph and page 84, first full paragraph:

It cannot be emphasized enough that the number of nontarget rodenticide poisoning cases documented to date are indicative of a much larger problem. In suburban areas, people are not likely to pick up a dead animal and send it to a wildlife pathologist to find out why it died. In rural areas, birds and animals that succumb to rodenticide poisoning are simply not likely to be observed or detected. Stinson et al., (1994) cites Balcomb (1986) as reporting that 62 - 92% of carcasses placed in corn fields disappeared within 24 hours of being placed in the fields. Stinson et al (1994) also cites Woronecki et al., (1979) as observing that 28, 34, and 72% of house sparrow carcasses placed in mature corn fields were completely removed by scavengers after 1, 2, and 3 days, respectively. Recently, an ecologist from this Bureau attended a course conducted by the U.S. Fish and Wildlife Service entitled "Pesticide Effects to Fish and Wildlife Resources" at the National Conservation Training Center in Shepherdstown, West Virginia. One segment of that class was "Conduct of a Field Investigation of a Simulated Pesticide Incident". To prepare for the training, a three to four acre field had been seeded with 113 bird carcasses the preceding day. The field was searched for about an hour by a dozen students. Only about 10% of the seeded carcasses could be found. This experience shows the difficulty of accurately measuring pesticide impacts to birds and wildlife.



Sincerely,

Gerald A. Barnhart
Director
Division of Fish, Wildlife and Marine
Resources

cc: W. Stone
T. Sinnott
S. Hammond
M. Serafini

Literature Cited:

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Stone, W. B., J. C. Okoniewski, and J. R. Stedelin, 1999. Poisoning of wildlife with anticoagulant rodenticides in New York. *J. Wildl. Dis.* 35:187-193.

Stone, W. B., J. C. Okoniewski, and J. R. Stedelin, 2003. Anticoagulant rodenticides and raptors: recent findings from New York, 1998 - 2001. *Bull. Environ. Contam. Toxicol.* (2003) 70:34-40

Woronecki, P.P., R.A. Dolbeer, C.R. Ingram, and A.R. Stickley, Jr., 1979. 4-Aminopyridine effectiveness reevaluated for reducing blackbird damage to corn. *J. Wild. Manage.* 43:184-191